14 Aug 2008, 8:00 am - 4:00 pm

Symposium - James K. Mitchell

Multiple Authors

Richard A. Mitchell, P.G., C.E.G.

Engineering Geologist
RMC Geoscience, Inc.
Novato, California

Richard Mitchell obtained his M.S. in Geotechnical Engineering at the University of California, Berkeley in 1983 and his B.S. in Geology from California State University, Chico in 1979. He is a Professional Geologist and Certified Engineering Geologist in the State of California. Prior to founding RMC Geoscience in 1992 he worked as an engineering geologist for GeoSyntec Consultants, CH2M HILL, and Dames & Moore. Before Dames & Moore, he worked as an exploration geologist for Homestake Mining Company.

For over 20 years, he has been involved with a large number of solid waste, hazardous waste, engineering geology, geotechnical engineering, and hydrogeology projects for both public and private sector clients. More recently, he has focused on solid and hazardous waste landfill closure and design, particularly in the areas of leachate management, groundwater characterization, landfill stability, environmental monitoring, permit compliance, and constructions quality assurance.

James Michael Duncan

University Distinguished Professor and
Director of the Center for Geotechnical Practice and Research

Department of Civil and Environmental Engineering
Virginia Polytechnic Institute and State University

J. Michael Duncan received his BSCE from Georgia Tech in 1959, his MSCE from Georgia Tech in 1962, and his PhD from the University of California, Berkeley in 1965. He is a registered professional engineer in California and Virginia.

He joined the faculty of the University of California at Berkeley in 1965, and was promoted to Professor of Civil Engineering there in 1973. He was responsible for developing and teaching undergraduate and graduate courses in the area of geotechnical engineering, and served as the chairman of the Geotechnical Group for several years. In 1984 he moved to Virginia Tech, where he was appointed the W. Thomas Rice Professor of Civil Engineering. In 1987 he was appointed University Distinguished Professor.

At Virginia Tech he has developed and taught undergraduate and graduate courses in geotechnical engineering, dealing with soil mechanics, foundations, and earth dams. He served as the Coordinator of the Geotechnical Engineering group from 1984 through 1993.

His principal research interests have been slope stability, soil-structure interaction, design and analysis of foundations, strength and deformation properties of soils, finite element analyses of stresses and deformations in earth masses, and seepage through soil. He has authored more than 200 publications in the area of geotechnical engineering, including engineering manuals on settlement studies, slope stability, design of buried culverts, shallow foundations, driven pile foundations, drilled shaft foundations, retaining walls and bridge abutments. He has also developed computer programs for analysis of stresses and movements in dams, soil-structure interaction, consolidation settlements, retaining wall stability, design of buried culverts, design of anchored bulkheads, and analysis of lateral loads on deep foundations.

Since 1965 he has served as an independent geotechnical engineering consultant on projects in the United States, South America, Europe, the Middle East, Japan and New Zealand. His current consulting work includes serving as a member of the Geotechnical Advisory Board for the Panama Canal (since 1986); as a consultant to PG&E reviewing the safety of some of their dams in the Sierras; as a reviewer for Geomatrix for design of new port facilities in Oakland California, and as a consultant for design of the I95-Route 1 interchange in Alexandria, Virginia. Recent projects include serving as a consultant to the Bogota, Columbia Water Board on settlement and remedial measures to protect the 60-inch diameter high-pressure water main at Calle 114 in Bogota, serving on the consulting board for Seven Oaks Dam (for eight years), serving as a consultant for the design of La Esperanza Dam in Ecuador (for five years), as a reviewer of the Corps of Engineers design for mitigation of stability and seepage problems at the

James Michael Duncan
Cont.

Cross Lake Dikes in Minnesota; as a reviewer of the design for expansion of the Cherry Island Maryland Landfill over soft clay; as a consultant for the stabilization of the high loess bluffs in Natchez, Mississippi, as a member of the review board for the Dam Safety Major Rehabilitation Project for Oahe Dam, as a member of the Independent Surveillance Board for Merrill Creek Dam (since 2000), as chief author and editor of the new U. S. Army Corps of Engineers Slope Stability Manual (2002), as a member of the FERC team to investigate the technical causes of the failure of the Silver Lake fuse plug in Michigan, as a member of the U. S. Bureau of Reclamation Board for review of the safety of Mormon Island Dam in California, as a consultant to DTA for review of the Duke Power Bridgewater project in North Carolina, as a consultant to Intecsa for review of the failure of Aznalcollar Dam in Spain, as a consultant to URS for Newark Dam, as a consultant to GEOST for geotechnical engineering of the British Petroleum LNG project in Tangguh, Indonesia, and as co-leader of the team investigating failures of floodwalls and levees in New Orleans during Hurricane Katrina.

He was elected to the National Academy of Engineering in 1985, and was elected to the grade of Honorary Member of ASCE in 1999. He has served professional societies as Chairman of the Geotechnical Group of the San Francisco Section of the American Society of Civil Engineers (ASCE), as Chairman of the Embankment Dams and Slopes Committee of ASCE, as Chairman of the Organizing Committee for the ASCE specialty conference "In Situ 86," and as Chairman of the Executive Committee of the Geotechnical Division of ASCE. He has served as a member of the Geotechnical Board of the National Research Council, and as Chairman of the Transportation Research Board Committee on Soil-Structure interaction. He was the chairman of the organizing committee for the Geo-Institute conference “2001: A Geo-Odyssey,” held at Virginia Tech in June 2001.

He has received three Outstanding Faculty Awards at UC Berkeley, the George Westinghouse national teaching award from the American Society for Engineering Education, four College of Engineering Teaching Excellence Awards at Virginia Tech, and the Department of Civil and Environmental Engineering Alumni Teaching Excellence Award in 2002.

He presented the Laurits Bjerrum Memorial Lecture in 1991, the Terzaghi Lecture in 1991, the Jack Hilf Memorial Lecture in 1997, the Arthur Casagrande Memorial Lecture in 1998, the George Sowers Memorial Lecture in 1999, the Spencer J. Buchanan Lecture in 1999, the Mueser-Rutledge Lecture in 2000, the Cullen Distinguished Lecture at the University of Houston in 2002, the Stanley Wilson Lecture in 2003, and the Kenneth L. Lee Memorial Lecture in 2004.

He has been awarded the Collingwood Prize, the Huber Research Prize, the Middlebrooks Award (in 1980, 1987, and 2003), the Wellington Prize, the State-of-the-Art Award, and the Bechtel Pipeline Engineering Award from ASCE, was named the Outstanding Engineering Educator in Virginia in 1994, and received the Terzaghi Award from ASCE in 2003.

Edward Kavazanjian, Jr.

Associate Professor, Arizona State University

Dr. Edward Kavazanjian, Jr. is an Associate Professor of Civil and Environmental Engineering at Arizona State University. He is widely recognized for his work on waste mechanics and waste containment systems. His experience includes landfill design, research on the mechanical properties of municipal solid waste, and field reconnaissance of landfill performance in the 1994 Northridge earthquake and the waste slides at the Rumpke Landfill in Cincinnati in 1996 and the Payatas Landfill in the Philippines in 2001. Dr. Kavazanjian is co-author of the USEPA guidance document *RCRA Subtitle D (258) Seismic Design Guidance for Municipal Solid Waste Landfill Facilities.*

Rudy Bonaparte

GeoSyntec Consultants

Rudy Bonaparte received a B.S. in civil engineering from the University of Texas at Austin (1977) and an M.S. (1978), and Ph.D. (1981) in geotechnical engineering from the University of California, Berkeley, where he studied under Professor James K. Mitchell. For the past 20 years, he has been at GeoSyntec Consultants, Inc., serving as President and CEO for more than a decade. GeoSyntec is an employee-owned 600-person consulting and engineering firm practicing in the environmental, geotechnical, water resources, and structural engineering disciplines.

Dr. Bonaparte has focused his professional engineering practice in the areas of: contaminated soil, sediment, and groundwater remediation; solid, hazardous, and low-level radioactive waste disposal facility design and permitting; and geoenvironmental and geotechnical engineering. He is the author or co-author of more than 50 technical papers, several book chapters, and six major reports published by the U.S. Environmental Protection Agency, Federal Highway Administration, and U.S. Navy on topics related to geoenvironmental and geotechnical engineering. He has served on the editorial boards of the ASCE *Journal of Geotechnical and Geoenvironmental Engineering*, the journal *Geosynthetics International*, and the on-line *International Journal of Geoengineering Case Histories*. He is co-recipient of the 2000 J. James Croes Medal from ASCE, the 1994 IGS award from the International Geosynthetics Society, and, in 1991, an Award of Excellence from the North American Geosynthetics Society. While at Berkeley, he was the recipient of a National Science Foundation Graduate Research Fellowship. He was elected to the National Academy of Engineering in 2007.

H. Turan Durgunoğlu

Professor Emeritus
Boğaziçi University
Department of Civil Engineering
P.K. 2 Bebek, İstanbul, Turkey

Chairman, Partner and Consultant
Zetaş Zemin Teknolojisi A.Ş.
Şehit Murat Demir cad. No: 69/A
Ümraniye, Istanbul, Turkey

durgunoglut@zetas.com.tr
Phone: Office: 0 (216) 492 33 01
Cell: 0 (532) 214 01 21
Home: 0 (212) 239 72 77
Fax: 0 (216) 492 33 06

Dr. Durgunoğlu earned his B.S.Civil Engineering in June 1968 from the Technical University of İstanbul, Turkey, and his M.S. in Civil Engineering (December 1969) and Ph.D. in Civil Engineering (June 1972) from the University of California, Berkeley, U.S.A.

A member of numerous professional societies, Dr. Durgunoğlu has extensive experience with earthquake engineering, city planning and environmental geotechnics, sewage treatment programs, lunar soil mechanics, highway/motorway projects, railway/lightrail/subway construction, airfields, viaducts/bridges, tunnels, pipelines/silos/reservoirs/harbours, power plants, industrial facility construction, as well as housing, shopping center, business complex and hotel construction.

Dr. Durgunoğlu is the author of over one hundred twenty national and international papers and nearly two hundred geotechnical engineering technical and research reports. He has written the chapter for Turkey in the “International Handbook of Earthquake Engineering, Codes, Programs, and Examples”. He has also prepared the country report, “CPT in Turkey” on Cone Penetration Testing to the symposium of CPT’95 held in Sweden.

Kenichi Soga

University of Cambridge

Kenichi Soga is Professor of Civil Engineering at the University of Cambridge. His current research activities are modelling of geotechnical construction processes, development of innovative monitoring techniques and investigation of up-scaling from laboratory to field conditions. He has published more than 140 journal and conference papers. He is co-author of “Fundamentals of Soil Behavior, 3rd edition” (John Wiley and Sons) with Professor James K. Mitchell. He is recipient of several awards including the George Stephenson Medal from the Institution of Civil Engineers (2006) and the Walter L. Huber Civil Engineering Research Prize from the American Society of Civil Engineers (2007).